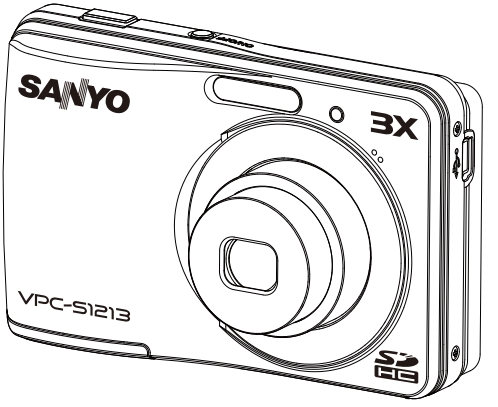
SANYO

INSTRUCTION MANUAL

VPC-S1213

Digital Camera



Please read these instructions carefully before using the camer
Keep this manual in a safe place for later reference.

FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

Note:

This equipment has been tested and found to comply with the limits for Class B digital devices, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Use of shielded cable is required to comply with Class B limits in Subpart B of Part 15 of the FCC rules.

Do not make any changes or modifications to the equipment unless otherwise specified in the manual. If such changes or modifications should be made, you could be required to stop operation of the equipment.

Notice

If static electricity or electromagnetism causes data transfer to discontinue midway (fail), restart the application or disconnect and connect the communication cable (USB, etc.) again.

READ THIS FIRST

Trademark Information

- Microsoft® and Windows® are U.S. registered trademarks of Microsoft Corporation.
- Pentium® is a registered trademark of Intel Corporation.
- Macintosh is a trademark of Apple Inc.
- SD™ is a trademark.
- SDHC™ is a trademark.

- Other names and products may be trademarks or registered trademarks of their respective owners.

Product Information

- Product design and specifications are subject to change without notice. This includes primary product specifications, software, software drivers, and user's manual. This User Manual is a general reference guide for the product.
- The product and accessories that come with your Camera may be different from those described in this manual. This is due to the fact that different retailers often specify slightly different product inclusions and accessories to suit their market requirements, customer demographics, and geographical preferences. Products very often vary between retailers especially with accessories such as batteries, chargers, AC adapters, memory cards, cables, pouches, and language support. Occasionally a retailer will specify a unique product color, appearance, and internal memory capacity. Contact your dealer for precise product definition and included accessories.
- The illustrations in this manual are for the purpose of explanation and may differ from the actual design of your Camera.
- The manufacturer assumes no liability for any errors or discrepancies in this user manual.

Before capturing those important shots, be sure to first take a test shot to confirm that your camera is set up and ready to go

- Sanyo Electric shall not be held responsible for any problems resulting from the use of this camera.
- Sanyo Electric declines all responsibility for damages due to improper use of the camera, failure to adhere to the instructions given in this manual, or repairs or changes done by those other than a technician authorized by the manufacturer.
- Sanyo Electric shall not be held responsible for any damage caused by optional devices or consumable items used with the camera other than those supplied with the camera or those specified by Sanyo Electric.
- Sanyo Electric shall not be held responsible for any losses or loss of revenue resulting from the loss of data caused by the malfunction, or the repairing of a malfunction, of the camera.
- The images captured with this camera will differ in quality from pictures taken with a standard film camera.

SAFETY MANUAL

USING YOUR DIGITAL CAMERA SAFELY AND CORRECTLY

- **Before using your camera, please read and understand these safety instructions as well as the instruction manual for your camera.**
- **Keep all manuals in a safe place for later reference.**
- **These safety instructions cover both the camera and its accessories. Depending on which product was purchased, the camera specifications and accessories may differ.**

CAUTIONS CONCERNING BOTH CAMERA AND ACCESSORIES

WARNING

■ **If a device emits smoke, makes a strange noise, emits a strange odor, or becomes excessively hot, immediately turn off the power and proceed as follows**

- If a device is used under these conditions, it may cause a fire or electric shock.

① Turn off the device.
② When use the docking station or AC adaptor/charger, unplug the power cord from the power outlet.
③ Remove the battery.

- After completing these actions, wait to make sure no more smoke comes from the device. Then take it to the dealer for service. Do not try to repair or open the device yourself.

■ **Do not use during a storm**

- To avoid the risk of being struck by lightning, do not use the devices during a thunderstorm. In particular, if used in an open field, you have an increased chance of being struck by lightning. Quickly seek refuge in a place that will protect you from lightning.

■ **Keep the devices out of the reach of children**

- The following may happen if children play with the devices:
  - They may wrap the neckstrap around their neck and suffocate.
  - They may swallow small parts, such as the battery or card. In such a case, consult a physician immediately.
  - They may damage their eyesight if the flash or LED light goes off too close to their eyes.
  - They may get hurt by the camera or other devices.

■ **Do not disassemble or modify**

- It is dangerous to touch the inside of the devices. Doing so may cause a fire or electric shock.
- The camera, especially, incorporates high-voltage circuits.
- Any internal check, setting, or repair should be performed by the dealer.
- Do not use the AC adaptor as a direct current generator.

■ **Do not break the LCD monitor or lens**

- Do not apply pressure to the LCD monitor and lens or submit them to shock, as doing so may cause the glass to break and result in injury.
- In the event that the LCD monitor is cracked, DO NOT allow the liquid from the LCD to come into contact with your skin, as it may cause irritation or inflammation.

CAUTIONS CONCERNING THE CAMERA

WARNING

■ **Do not use while driving**

- Do not capture images, play back images, or watch the LCD monitor while driving a vehicle. Doing so may cause an accident.
- Be careful where you put down the camera inside an automobile. During sudden stops or turns it may fall behind the brake pedal and prevent braking.

■ **Be aware of your surroundings when using the camera**

- Pay close attention to your surroundings when using the camera. Failure to do so may lead to an accident or injury.
- When using the camera while walking, be very careful of your surroundings and especially the traffic to avoid accidents.
- Do not use the camera inside an airplane or elsewhere where its use may be restricted. Doing so may cause an accident.

■ **Do not get the camera wet**

- This camera is not water-resistant. Do not allow it to get wet, as doing so may cause a fire or electric shock.
- Do not use the camera in a bathroom.
- If the camera gets wet, immediately turn it off and remove the battery. Then take it to a dealer for repair. Using the camera after it has been become wet may cause a fire, electric shock, or other accident.

■ **Do not place on an unstable surface**

- The camera may fall, resulting in damage to the camera or injury.
- If the camera has fallen or has been trampled on, and its body is damaged, turn it off, remove the battery, and take it to the dealer for repair. Using the camera after its body has been damaged may cause a fire or electric shock.

■ **Do not look through the camera into the sun**

- Do not look through the camera at the sun or any other strong source of light. Doing so may seriously injure your eyes.

■ **Do not use the flash or LED light close to a person's eyes**

- To prevent possible eye injury, do not use the flash or LED light near a person's eyes. If the flash or LED light is used close to a person's opened eyes, there is a risk that it may damage his/her eyesight. Especially with young children or babies, use the flash or LED light from a distance of at least 1 meter away.
- Pointing the flash or LED light towards a driver of a vehicle may cause temporary blindness leading to an accident.

■ **Do not use where there is risk of explosion**

- Do not use the camera in a location where there is explosive gas, or any other flammable material in the air. Doing so may cause a fire or an explosion.

CAUTION

■ **Cautions when carrying the camera**

- Do not walk around with the camera suspended from your neck or dangling from your wrist. It may hit other objects and get damaged. When walking around with the camera, secure it with your hand, for example, to prevent it from swinging around.
- Be careful not to drop the camera or subject it to strong shocks.
- Make sure direct sunlight does not hit the camera lens, as that may damage the internal parts. When not using the camera, be sure to always turn it off and confirm that the lens is covered.

■ **If the camera is not going to be used for a long period of time**

- For safety's sake, remove the battery from the camera. This will prevent any possible excess heat or leakage of battery fluid that may result in injuries or damage to nearby objects.

■ **Cautions during use and storage**

- This camera is a precision instrument. It should not be used, left or stored in a car exposed to the hot sun or where there are extreme changes in temperature or humidity, or where it may be exposed to water or dust.

Operating environment:

• Temperature	0 to 40°C (32 to 104°F) (operation)
	–20 to 60°C (–4 to 140°F) (storage)
• Humidity	30 to 90% (operation, no condensation)
	10 to 90% (storage, no condensation)

■ **Do not hold the hot part for a long time**

- The camera may become warm during use. A low temperature burn may result if you hold the hot part for a long time.

■ **Do not cover or wrap the camera in a cloth or blanket**

- It may generate heat and cause the casing to warp or cause a fire.

CAUTIONS CONCERNING THE DOCKING STATION AND AC ADAPTOR/CHARGER

DANGER

■ **Do not recharge a battery pack other than the specified battery pack**

- Recharging a dry-cell battery or other type of rechargeable battery may cause excess heat, combustion, or leakage, and cause a fire, injuries, burns, or damage to nearby objects.

■ **Concerning the power cord**

- The voltage rating for the power cord supplied with this camera conforms to the standards of the country in which the camera was sold.

■ **Do not get the docking station or AC adaptor/charger wet**

- Make sure they do not get wet, as doing so may cause a fire or electric shock.
- Do not use them in a bathroom.
- If the docking station or AC adaptor/charger gets wet, immediately unplug it from the power outlet and remove the battery pack. Then contact the place of purchase. If used while wet, it may cause a fire, electric shock, or an accident.

WARNING

■ **Cautions when plugging in the power cord**

- Securely plug the power cord all the way into the power outlet. If the docking station or AC adaptor/charger is used with the power cord not fully plugged in, heat may be generated and cause a fire.
- Do not use if the power cord is damaged or cannot be correctly plugged into the power outlet. Using in this condition may cause a fire or electric shock.
- Do not allow dust, etc., to build up on the power cord or power outlet. A build-up of dust may cause a short circuit or generate heat and cause a fire. Use a dry cloth to remove dust or dirt build-up after unplugging the cord from the power outlet.
- When unplugging the power cord, be sure to hold the plug part and slowly pull it out of the power outlet. Pulling the cord portion may damage the power cord and cause a fire or electric shock.

■ **Do not damage the power cord**

- Do not place heavy objects on the power cord. Do not place the power cord near a heat source. Do not excessively bend the power cord, modify it, or secure it with staples. Doing so may damage the power cord and cause a fire or electric shock.
- If the power cord is damaged, or if it does not plug properly into the docking station, AC adaptor/charger or wall outlet, contact the place of purchase.

■ **Cautions concerning the power cord**

- Do not leave the power cord plugged into an electrical outlet while the other end is not plugged into the AC adaptor/charger. The loose end can cause electrocution if touched with wet hands or if handled by children.
- Use only the supplied power cord. If a different power cord is used, it may be rated for a different current load, and that may cause a fire.
- The supplied power cord is for exclusive use with the AC adaptor/charger supplied with your camera. Do not use it with other devices, as doing so may cause a fire or electric shock.
- Do not use a bundled power cord, as the heat generated may cause a fire.

■ **Do not touch the power cord plug with wet hands**

- Doing so may cause an electric shock.

CAUTION

■ **Do not hold the hot part for a long time**

- The device(s) may become warm during use. A low temperature burn may result if you hold the hot part for a long time.

■ **Do not place on an unstable surface**

- If may fall, resulting in damage or injury.
- If the device has fallen or has been trampled on, and its body is damaged, turn it off, remove the battery, and take it to the dealer for repair. Using the device after its body has been damaged may cause a fire or electric shock.

■ **Other cautions**

- Use only the supplied or specified docking station and AC adaptor/charger with your camera.
- If a docking station or AC adaptor/charger other than the ones specified is used, it may damage the camera and cause a fire or electric shock. Use the supplied or specified docking station and AC adaptor/charger only with the specified camera. Do not connect to other cameras, as doing so may result in damage.

■ **Cautions during use and storage**

- Do not use, leave or store close to a heat source (a stove or heater), in a car exposed to the hot sun, or any place exposed to direct sunlight, as doing so may result in defective operation or damage.

Operating environment:

- Temperature 0 to 40°C (32 to 104°F) (charging)
  –20 to 60°C (–4 to 140°F) (storage)
- Humidity 20 to 80% (charging and storage)

- To avoid the danger of possible fire, be sure to remove the power cord from the power outlet before leaving home for a trip or if otherwise the devices will not be used for a long time.

CAUTIONS CONCERNING THE CARD

CAUTION

■ **Cautions concerning the card**

- Immediately after use, the card will be very hot. Before removing the card, turn off the camera and wait for the temperature to cool down.
- Keep out of the reach of children. Young children may put the card in their mouth and choke or cause some other unexpected injury or accident.
- If the card has been swallowed, contact your doctor immediately.

■ **Cautions when handling the cards**

- The cards are precision devices. Do not bend, drop, or subject them to strong forces or shocks.
- Avoid using or storing the cards in places with extremely high or low temperatures, subject to direct sunlight, in a completely closed vehicle, near air conditioners or heaters, or in humid or dusty locations.
- Avoid using or storing the cards in locations where strong static electrical charges or electrical noise can be easily generated.
- Do not allow the edges of the cards to become contaminated with foreign materials. Gently wipe away any contamination with a soft, dry cloth.
- Do not carry the cards in trouser pockets, as the cards may become damaged when you sit down or make other movements that may apply force.
- Before using a new card or a card that was used in other equipment, be sure to format it using the camera. Please see the Instruction Manual for information regarding how to format the card.
- When buying commercially available products, carefully read the instructions and warnings that come with the card.

CAUTIONS CONCERNING THE BATTERY

SAFETY PRECAUTIONS	Battery type and danger level (Note: The cautionary notes differ depending on the model you purchased. Please check the safety precautions corresponding to your model.)		
	Rechargeable Li-ion battery pack	Alkaline batteries	Lithium battery for remote control unit
■ **Use only batteries manufactured by SANYO** • Do not use batteries other than the specified model numbers from SANYO. Especially for safety purposes, do not use imitation products. If dry-cell batteries or other rechargeable batteries are used, the batteries may generate heat, rupture, or leak and result in fire, injury, burns or damage to surroundings.	**DANGER**	—	
■ **If there is leaking, discoloration, change of shape, damaged exterior, strange odor, extreme heat or any other abnormal condition, immediately discontinue use and remove the battery from the camera, taking care to keep it well away from fire** • Continuing to use the battery under any of these conditions may result in fire, injury, explosion or other serious damage. • If battery fluid is leaking, placing the battery in close proximity to a fire or other heat source may ignite the battery fluid and result in fire, damage, eruption of battery fluid, or smoke fumes.	**DANGER**		**WARNING**
■ **Do not transform, take apart, or modify** • Any modification, by transforming, disassembling, or directly soldering to the battery, etc., will possibly cause the battery to catch fire, explode, or leak or spew battery fluid.	**DANGER**	**WARNING**	
■ **Do not connect the (+) and (–) terminals with a wire or other metal implement. Do not carry loose or keep with necklaces, hairpins, etc.** • Doing so may result in a short circuit, high voltage flow, fire, explosion, leaking or spewing battery fluid, or heat generation. Metal such as a wire or necklace, etc. may cause heat to be generated.	**DANGER**	**WARNING**	
■ **Do not throw the battery in the fire or subject it to heat** • Doing so may cause the insulation to melt, damage the gas discharge valve and safety mechanisms, or ignite the battery fluid, resulting in fire or explosion.	**DANGER**	**WARNING**	
■ **Do not drop, hit, trample, or submit the battery to strong shocks** • If the safety mechanisms and protective devices are broken, an abnormal chemical reaction may occur inside the battery, or cause the battery to catch fire, explode, leak or spew battery fluid, or generate heat.	**DANGER**	**WARNING**	
■ **Do not allow the battery to come into contact with fresh or salt water, or allow the terminals to become wet** • If the safety mechanisms and protective devices are damaged by corrosion, an abnormal chemical reaction may occur inside the battery, or cause the battery to catch fire, explode, leak or spew battery fluid, or generate heat.	**DANGER**	**WARNING**	
■ **Use only the supplied or specified docking station and AC adaptor/charger** • If another charger is used, the battery pack may be overcharged, or recharged with an abnormal voltage, causing an abnormal chemical reaction to occur, or cause the battery pack to catch fire, explode, leak or spew battery fluid, or generate heat.	**DANGER**	—	
■ **Use the battery pack only in the specified device** • If the battery pack is used in a device other than that specified, it may cause an abnormal voltage flow, or cause the battery pack to catch fire, explode, leak or spew battery fluid, or generate heat.	**DANGER**	**WARNING**	
■ **Do not peel or damage the outer casing** • Damaging the outer case, inserting nails, hitting with a hammer, stepping on the battery, etc. may cause a short circuit inside the battery or cause the battery to catch fire, explode, leak or spew battery fluid, or generate heat.	**DANGER**	**WARNING**	
■ **If the battery is leaking and the battery fluid gets on your skin or clothing, immediately rinse with clean water** • If the battery fluid gets into your eyes, you risk losing your eyesight. Immediately rinse your eyes with clean, running water, and seek medical attention right away. Any battery fluid that comes into contact with your skin or clothing may harm your skin. Immediately rinse the area with clean, running water.	**DANGER**	**WARNING**	
■ **Insert the battery correctly, as indicated** • When installing the battery, pay attention to the indicated polarity (+ and –), and insert it correctly. • If batteries are installed with the wrong orientation, it may cause an abnormal chemical reaction while in the charger, an abnormal voltage flow when it is used, or cause the battery to catch fire, explode, leak or spew battery fluid, or generate heat.	**DANGER**	**WARNING**	
■ **Always stop the recharging after the prescribed recharge time, even if the battery pack is not fully charged** • If you continue to recharge the battery pack, it may cause the battery pack to catch fire, explode, leak or spew battery fluid, or generate heat.	**WARNING**	—	
■ **Charge the battery pack before using it** • Always recharge the battery pack before using it for the first time, or when using it after it has been kept in storage for a long time. During recharging, the battery pack may be warm. This is normal and does not indicate a malfunction.	**CAUTION**	—	
■ **Note concerning the battery after use** • When removing the battery, turn off the camera and allow the battery to cool down before removing it.	**CAUTION**		—
■ **Disposal of and recycling the battery** • When disposing of used batteries, please consult the laws and regulations in your area for proper battery disposal. • Lithium-ion batteries: To conserve the environment and for efficient use of natural resources, please discharge the used battery, cover the (+) and (–) terminals with tape and recycle the insulated battery.	**CAUTION**		

CAUTIONS CONCERNING THE BATTERY

■ **General precautions concerning the batteries (when using alkaline batteries)**

- **Use only alkaline batteries or other specified batteries in this camera. Manganese batteries cannot be used, as they have a short battery life and may overheat, causing damage to the digital camera.**
- Use of an alkaline battery together with a Ni-Cd battery, or a new battery with an old or consumed battery, may generate heat or cause the batteries to leak, resulting in fire, injury or burns, or damage to the camera and any other nearby object.
- Use of batteries without protective casings or other inferior products may cause a fire, injury, or burns.
- Do not attempt to recharge dry-cell batteries.
- If the digital camera is not going to be used for a long period of time, remove the batteries and store them in a cool place. (When the batteries are removed for a long period, the time and date settings will be cleared.)
- If using rechargeable batteries instead of alkaline batteries, use after fully recharging with the exclusive battery charger. Be sure to read and understand the instruction manuals that may come with the batteries you purchase, as well as the instruction manual for the battery charger, before use.

■ **Cautions concerning use and storage of the rechargeable Li-ion battery pack**

- **Do not use the battery with the outer covering or label removed, as doing so may result in malfunction.**
- **Temperature when using: 0 to 40°C (32 to 104°F)**
- **Do not use, leave or store the battery pack near fire or inside a car exposed to the hot sun, etc. (Locations in which the temperature reaches 60°C [140°F] or higher.)**
- At high temperatures, the safety mechanisms and protective devices inside the battery pack may be damaged by corrosion, causing an abnormal chemical reaction to occur, or cause the battery pack to catch fire, explode, leak or spew battery fluid, or generate heat. If the safety mechanisms and protective devices are damaged, the battery pack will become unusable.
- An environment with extremely high or low temperatures will cause the battery capacity to deteriorate and shorten the usable time, and may even shorten the battery life.
- Avoid storing the battery pack with it near full charge. It is recommended to store the battery pack when it is near fully discharged.
- If the battery pack is completely discharged, it may become unable to be recharged again. To avoid this, charge the battery pack for at least five minutes every six months.
- **Storage temperature: –10 to 30°C (14 to 86°F)**
  When not using the battery pack, remove it from the camera and store at –10 to 30°C (14 to 86°F) in a place with no condensation.
- Do not keep in a place where the temperature reaches 45°C (113°F) or higher.
- **Humidity: 10 to 90% (no condensation)**

FOR CORRECT USE OF YOUR CAMERA

■ **Cautions before capturing important images**

- Before capturing important images, make sure that the camera is operating properly and in condition to capture the images properly.
- Sanyo Electric shall not be held responsible for any losses that result from images that could not be recorded, are erased, destroyed, or damaged in any way due to a problem with the camera, any of its accessories, or its software.

■ **Caution concerning copyrights**

- The images you capture with your camera are for your own private use; any other use may violate the rights of copyrights owners.
- Please note that photography may be restricted at stage performances, shows or exhibitions, even in presentations whose purpose is entertaining or amusing individuals.
- Also note that images that are intended to be copyrighted cannot be used outside those limits defined by the regulations of the relevant copyright laws.

■ **Cautions when cleaning the camera**

Cleaning procedure

① Turn off the camera and remove the battery.
(For safety, remove the power cord plug of the AC adaptor from the power outlet.)
② Remove the dirt with a soft cloth.

If the camera is extremely dirty,

③ Wipe with a soft cloth moistened with a mild detergent diluted with water and wrung dry.

CAUTION

- Do not use benzene or thinner products to clean the camera. Doing so may cause deformation, discoloration, or paint peeling. When using a chemically treated cloth, carefully read its instructions and warnings.
- Do not spray insecticides or volatile sprays on the camera. Do not let rubber or vinyl objects contact the camera for a long period. They may cause deformation, discoloration, or paint peeling.
- Wipe the monitor with a soft cloth that has been moistened with water and well wrung out. Wiping with a cloth soaked with a cleaning substance or chemicals will erode the finish or cause it to peel.

■ **Caution concerning the battery**

- Periodically clean with a dry cloth the terminals (contacts) of the battery. Do not touch the battery terminals with your bare hands. Doing so will allow contaminants from your hands to adhere to the terminals and oxidize, increasing the contact resistance. If the contact resistance increases, the usable life of the batteries will diminish.

■ **Caution when cleaning the lens**

- If the lens gets dirty, use a commercially available air blower or a cleaning cloth for photographic equipment to clean it.

■ **When not using the camera for a long period**

- Remove the battery. However, when the battery is removed for a long time, the camera functions may begin to not work properly.
  Periodically reinstall the battery and check the camera functions.
- If the battery is left in the camera, a small amount of power is still used even if the camera is turned off. If rechargeable batteries are left in the camera for a long period, they may become completely discharged and lose their ability to be recharged again.

■ **Cautions concerning condensation**

- Using the camera with condensation inside it may damage the camera.

If condensation seems likely to form

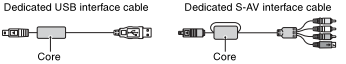
- Place the camera in a plastic bag and seal it, and then wait until the camera has reached the ambient temperature.

Be careful of condensation under the following conditions

- When moving the camera suddenly from a cold place to a warm place.
- When the ambient temperature changes drastically, such as when a heater is turned on to quickly heat the room.
- When the camera is placed in the path of cool air from an air conditioner.
- When the camera is placed in a location of high humidity.

■ **Caution concerning undesired interference**

- The camera may create undesired interference if used close to a television or radio. To avoid this type of interference, make sure the cores on the supplied cables are not removed.



* The type (shape) and quantity of cable(s) supplied may differ depending on which product was purchased.

- If the docking station or AC adaptor/charger is used in close proximity to a radio or TV set, it may cause interference such as static in AM broadcast signals or noise in the TV image. In this case, increase the distance between the radio or TV and the device.

■ **Caution concerning magnetism (for cameras with a speaker)**

- Do not place credit cards, bank cards, floppy disks, or other items that may be damaged by magnetic fields near the speaker. Data may be lost or the magnetic strips on cards may be damaged.

■ **Cautions concerning data storage**

- It is recommended that any important data be copied onto a separate media (such as a hard disk, MO disk, or CD-R disk).
- Stored data may be lost (or corrupted) in cases such as those listed below.
- Sanyo Electric will not be held responsible for any damage or lost profits arising from the loss of data.
  - If the card is used incorrectly.
  - If the card is not inserted correctly into the camera.
  - If the card is subjected to electrical or mechanical shocks or other forces.
  - If the card is removed from the camera or if the camera is turned off during reading or writing operations.
  - If the card has reached the end of its usable life.

■ **Caution concerning rise in battery temperature (automatic power OFF safety feature)**

- If the battery temperature should rise to a specific level while the camera is in use, a ⚠ icon will blink on the monitor. Recording and playback are possible even when the ⚠ icon is blinking; however, it is advised that in this situation you discontinue using the camera and turn it off as soon as possible.
- If the battery temperature rises further while the ⚠ icon is blinking, the safety feature will operate to automatically turn off the camera, and recording and playback will not be possible. If this happens, the camera cannot be turned on until the battery temperature has fallen. Please wait for the battery to cool down before using the camera again.

Warning:
TO PREVENT THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE

FOR AMERICAN USERS

The following advisory is included in accordance with the laws of the State of California (USA):

WARNING:
This product contains a chemical known to the States of California to cause cancer, birth defects or other reproductive harm.

- This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designated to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
  * Reorient or relocate the receiving antenna.
  * Increase the separation between the equipment and receiver.
  * Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  * Consult the dealer or an experienced radio/TV technician for help.
- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FOR CANADIAN USERS

- This Class B digital apparatus complies with Canadian ICES-003

FOR EU USERS

The symbol mark and recycling systems described below apply to EU countries and do not apply to countries in other areas of the world.
Your SANYO product is designed and manufactured with high quality materials and components which can be recycled and/or reused.
The symbol mark means that electrical and electronic equipment, batteries and accumulators, at their end-of-life, should be disposed of separately from your household waste.
Note:
If a chemical symbol is printed beneath the symbol mark, this chemical symbol means that the battery or accumulator contains a heavy metal at a certain concentration.
This will be indicated as follows: Hg: mercury, Cd: cadmium, Pb: lead
In the European Union there are separate collection systems for used electrical and electronic equipment, batteries and accumulators.
Please, dispose of them correctly at your local community waste collection/recycling centre.
Please, help us to conserve the environment we live in!

Manufacturer and Address
SANYO Electric Co., Ltd.
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TÜRK KULLANICILAR iÇiN

Bu ünün, EEE yönetmeliðine uygundur
(ELEKTRiKLi VE ELEKTRONiK EÞYALARDA BAZI ZARARLI MADDELERiN KULLANIMININ SINIRLANDIRILMASINA DAiR YÖNETMELiK)

Symbols used in this manual

- Points giving some extended instructions or special points to pay attention to.

You many find the answers to questions or problems concerning camera operation in the sections “Troubleshooting”.

FCC information

Tested To Comply
With FCC Standards

FOR HOME OR OFFICE USE

Declaration of Conformity

Model number: VPC-S1213
Trade Name: SANYO
Responsible party: SANYO FISHER COMPANY
Address: 21605 Plummer Street
Chatsworth, California 91311
Telephone No.: (818) 998-7322
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

Canadian ICES-003 information

This class B digital apparatus complies with Canadian ICES-003.

Notes on Battery Usage

When you use the batteries, carefully read and strictly observe the ***Safety Instructions*** and the notes described below:

- Use only the specified batteries.
- Avoid extremely cold environments as low temperatures can shorten the battery life and reduce Camera performance. Therefore Ni-MH rechargeable batteries are highly recommended.
- When you are using a new rechargeable batteries or rechargeable batteries that have not been used for an extended period of time (the batteries that passed the expiry date are exception), it may affect the number of images that can be captured. Therefore, to maximize their performance and lifetime, we recommend that you fully charge the batteries and discharge them for at least one complete cycle before use.
- The batteries may feel warm after a long period of continuous use of the Camera or the flash. This is normal and not a malfunction.
- The Camera may feel warm after a long period of continuous use. This is normal and not a malfunction.
- If the batteries are not to be used for a long period of time, remove them from the Camera to prevent leakage or corrosion and store them after no battery power is left. Stored for a long time in a fully charged condition, their performance may be impaired.
- Always keep the battery terminals clean.
- There is a risk of explosion if the batteries are replaced by an incorrect type.
- Dispose of used batteries according to the recycle instructions.
- Charge the rechargeable batteries fully before using for the first time.
- Never use batteries of different types (together) or mix old and new batteries.
- Never use manganese batteries.
- To prevent short-circuiting or fire, keep the batteries away from other metal objects when carrying or storing.

CONTENTS

12 INTRODUCTION
12 Overview
12 Package Contents

13 GETTING TO KNOW YOUR CAMERA
13 Front View
13 Rear View
14 LCD Monitor Display

16 GETTING STARTED
16 Preparation
17 Initial Settings

19 CAPTURE MODE
19 Capturing Images
20 Setting the Scene Mode
21 Taking Images with Intelligent Scene mode
22 Taking Images When the Smile Feature Is On
22 Taking and Combining Panoramic Pictures
23 Photo Frame Function
23 Recording Shots into Multiple Image Layout
24 Recording Shots using Face Detection Technology
24 AF Tracking Mode
25 Self-portrait Function
25 Find Blur Function

26 VIDEO MODE
26 Recording Video Clips
26 Playing Back Video Clips

27 PLAYBACK MODE
27 Playing Back Still Images
27 Thumbnail Display
28 Removing Red-eye
28 Dynamic Lighting Feature
29 Protecting Images
30 Erasing Images

31 MENU OPTIONS
31 Capture Menu
33 Video Menu
34 Playback Menu
35 Setup Menu

37 TRANSFERRING FILES TO YOUR COMPUTER
37 Downloading Your Files

38 EDITING SOFTWARE INSTALLATION

39 SPECIFICATIONS

40 APPENDIX
40 Possible Number of Shots
41 Troubleshooting
42 Connecting to a PictBridge Compliant Printer

INTRODUCTION

Overview

Congratulations on your purchase of the new digital camera.
Capturing high-quality digital images is fast and easy with this state-of-the-art smart camera. Equipped with a 12.0-megapixel CCD, this camera is capable of capturing images with a resolution of up to 3968X2976 pixels.

Package Contents

Carefully unpack your camera and ensure that you have the following items:
Common Product Components:

- Digital Camera
- Quick Start Guide
- Bundled CD-ROM (Application Software and Instruction Manual)
- USB cable
- Camera strap
- 2 x AA size batteries

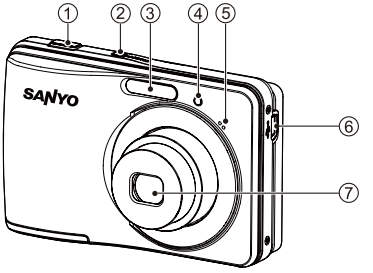
Common (Optional) Accessories:

- SD/SDHC memory card

- Accessories and components may vary by retailer.

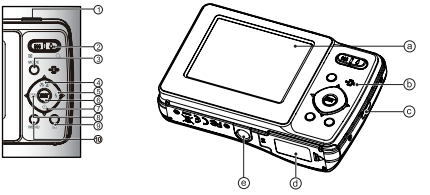
GETTING TO KNOW YOUR CAMERA

Front View



1. Shutter button
2. **ON/OFF** Power button
3. Flash
4. Self-timer LED
5. Microphone
6. USB terminal
7. Lens

Rear View



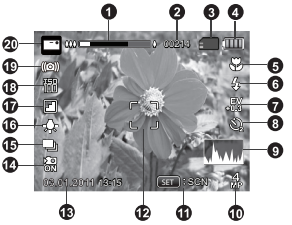
a. LCD monitor
b. Status LED
c. Strap holder
d. Battery / Memory card cover
e. Tripod socket

Item	Function		
	Capture Mode	**Video Mode**	**Playback Mode**
1.	Shutter button	Record button	Still image: to capture mode Video clip: to capture mode
2.	:Zooms out :Zooms in	:Zooms out :Zooms in	:Zooms out :Zooms in
3.	Switches to: Video mode >capture mode	Switches to: capture mode >Video mode	Still image: to capture mode Video clip: to capture mode
4.	Focus	Focus	--
5.	Flash	--	Next image
6.	If any scene mode is set: switches to scene mode selection screen	--	Still image: to display image Video clip: to play video clip
7.	Self-timer	Self-timer	--
8.	Compensation >	--	Previous image
9.	Playback Mode	Playback Mode	Still image: to capture mode Video clip: to capture mode
10.	Capture menu	Video menu	Playback menu

LCD Monitor Display

Capture mode

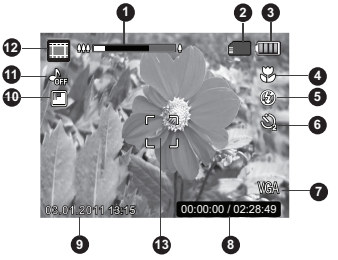
1. Zoom status
2. Available number of shots
3. Storage media
   - [INT] Internal memory (no card)
   - [ ] SD/SDHC memory card
4. Battery condition
   - [ ] Full battery power
   - [ ] Medium battery power
   - [ ] Low battery power
   - [ ] No battery power
5. Focus setting
   - [AUTO] Auto
   - [ ] AF Tracking
   - [ ] Face Detect
   - [ ] Macro
   - [∞] Infinity
6. Flash mode
   - [A] Auto
   - [ ] Flash On
   - [ ] Flash Off
   - [ ] Red-eye
   - [S] Slow Sync
   - [ ] Pre-flash
7. [ ] Exposure compensation
8. Self-timer & Self-portrait icon
   - [OFF] Off
   - [ ] Self-portrait
   - [ ] 2 sec.
   - [10] 10 sec.
   - [10+2] 10+2 sec.
9. [ ] Histogram
10. Image size resolution
    - [12M] 3968 x 2976
    - [8M] 3264 x 2448
    - [4M] 2304 x 1728
    - [2M] 1600 x 1200
    - [VGA] 640 x 480
11. Set key: SCN hint icon
12. Main focus area
13. Date and time
14. Quick shot
15. Capture mode icon
    - [ ] Single
    - [ ] Continuous
    - [ ] AEB (Auto Exposure Bracketing)
    - [ ] Album Shot
16. White balance
    - [AUTO] Auto
    - [ ] Incand.
    - [1] Fluoresc.1
    - [2] Fluoresc.2
    - [ ] Daylight
    - [ ] Cloudy



    - [ ] Manual WB
17. Image quality
    - [ ] Fine
    - [ ] Standard
    - [ ] Economy
18. ISO
    - [AUTO] Auto
    - [100] ISO 100
    - [200] ISO 200
    - [400] ISO 400
    - [800] ISO 800
    - [1600] ISO 1600
    - [3200] ISO 3200
19. Slow shutter warning
20. Mode icon / Scene mode
    - [ ] Program AE
    - [ ] Auto
    - [ ] Intelligent Scene
    - [ ] Smile Detection
    - [ ] Anti-shake
    - [ ] Panorama PanCapture
    - [ ] Portrait Man
    - [ ] Portrait Lady
    - [ ] Landscape
    - [ ] Sports
    - [ ] Night Portrait
    - [ ] Night Scene
    - [ ] Candlelight
    - [ ] Fireworks
    - [ ] Text
    - [ ] Sunset
    - [ ] Sunrise
    - [ ] Splash Water
    - [ ] Flow Water
    - [ ] Snow
    - [ ] Beach
    - [ ] Pets
    - [ ] Photo Frame
    - [ ] Natural Green

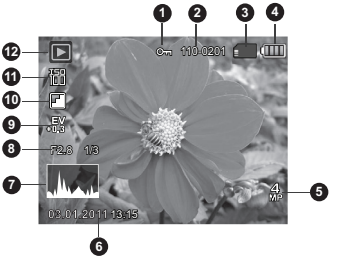
Video mode

1. Zoom status
2. Storage media
3. Battery condition
4. Focus setting
5. Flash mode
6. Self-timer icon
7. Video resolution
8. Elapsed time / Available recording time
9. Date and time
10. Video quality
11. Audio off icon
12. Mode icon
13. Main focus area



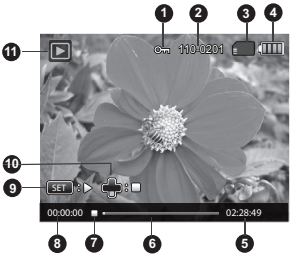
Playback mode - Still image playback

1. Protect icon
2. File / Folder number
3. Storage media
4. Battery condition
5. Image size resolution
6. Date and time
7. Histogram
8. Shutter speed value/Aperture value
9. Exposure value
10. Image quality
11. ISO
12. Mode icon



Playback mode - Video playback

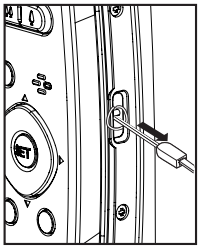
1. Protect icon
2. File / Folder number
3. Storage media
4. Battery condition
5. Total recorded time
6. Video status bar
7. Video condition icon
8. Elapsed time
9. Set key: Play / Pause hint icon
10. Down key: Stop hint icon
11. Mode icon



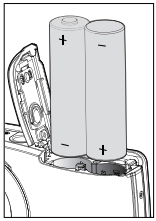
GETTING STARTED

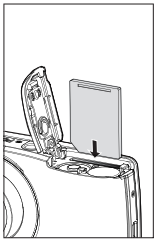
Preparation

1. Attach the camera strap.

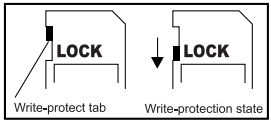


2. Open the battery/memory card cover.
3. Insert the supplied batteries with correct orientation as shown.
4. Insert an SD/SDHC memory card (Optional).
   - The camera has 32MB internal memory (23MB available for image storage), but you can load an SD/SDHC memory card to expand the camera's memory capacity.
   - Be sure to format the memory card with this camera before its initial usage.
5. Close the battery/memory card cover and make sure it is locked securely.





- To prevent valuable data from being accidentally erased from an SD/SDHC memory card, you can slide the write protect tab (on the side of the SD/SDHC memory card) to "LOCK".
- To save, edit, or erase data on an SD/SDHC memory card, you must unlock the card.
- To prevent damaging of an SD/SDHC memory card, be sure to turn off the power when inserting or removing the SD/SDHC memory card. If inserting or removing the SD/SDHC memory card with the power on, the camera will automatically turn off.



Initial Settings

The language & date/time needs to be set if and when:

- The camera is turned on for the first time.
- The camera is turned on after leaving the camera without the battery for an extended period of time.

1. Press the **ON/OFF** button to turn the power on.
2. Press any button to enter language setup. Select the displayed language with the ◄ / ► / ▲ / ▼ buttons and press the **SET** button.
3. Select the date format with the ▲ / ▼ buttons, and press the **SET** button.
4. Select the item's field with the ◄ / ► buttons and adjust the value for the date and time with the ▲ / ▼ buttons.
5. After confirming all settings are correct, press the **SET** button.
   - Half press the shutter button or press the **MENU** button will enter capture mode without saving the settings.

Setting the Date and Time

When the date and time information is not displayed on the LCD monitor, follow these steps to set the correct date and time.

1. Press the **MODE** button, and set the camera mode to [ ] or [ ]; or press the ▶ button.
2. Press the **MENU** button.
3. Select the [Setup] at the end of the Menu with the ▲ / ▼ buttons, and press the **SET** button.
4. Select [Date/Time] with the ▲ / ▼ buttons, and press the **SET** button.
5. Select the date format with the ▲ / ▼ buttons, and press the **SET** button.
   - Select the item's field with the ◄ / ► buttons and adjust the value for the date and time with the ▲ / ▼ buttons.
   - The time is displayed in 24-hour format.
   - After confirming all settings are correct, press the **SET** button.
6. To exit from the [Setup] menu, press the **MENU** button.

Choosing the Language

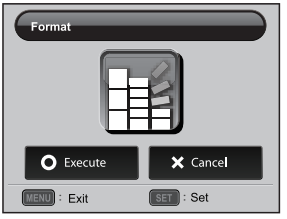
Specify in which language menus and messages are to be displayed on the LCD monitor.

1. Press the **MODE** button, and set the camera mode to [ ] or [ ]; or press the ▶ button.
2. Press the **MENU** button.
3. Select the [Setup] at the end of the Menu with the ▲ / ▼ buttons, and press the **SET** button.
4. Select [Language] with the ▲ / ▼ buttons and press the **SET** button.
5. Select the displayed language with the ◀ / ▶ / ▲ / ▼ buttons and press the **SET** button.
   - The setting will be stored.
6. To exit from the [Setup] menu, press the **MENU** button.

Formatting the Memory Card or Internal Memory

This utility formats the memory card (or internal memory) and erases all stored images and data.

1. Press the **MODE** button, and set the camera mode to [ ] or [ ]; or press the ▶ button.
2. Press the **MENU** button.
3. Select the [Setup] at the end of the Menu with the ▲ / ▼ buttons, and press the **SET** button.
4. Select [Format] with the ▲ / ▼ buttons, then press the **SET** button.
5. Select [Execute] with the ◀ / ▶ buttons, and press the **SET** button.
   - To cancel formatting, select [Cancel] and press the **SET** button.
6. To exit from the [Setup] menu, press the **MENU** button.

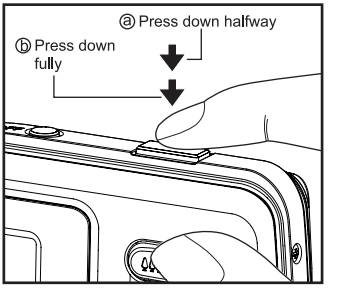


CAPTURE MODE

Capturing Images

Your camera is equipped with a 2.7" full color TFT LCD monitor to help you compose images, playback recorded images/video clips or adjust menu settings.

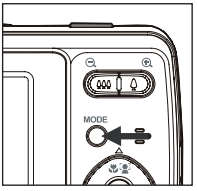
1. Press the **ON/OFF** button to turn the power on.
2. Press the **MODE** button, and set the camera mode to [ ].
3. Compose your image in the LCD monitor.
   - Turn the zoom lever to side to zoom in on the subject, and enlarges the subject on the LCD monitor.
   - Turn the zoom lever to side to zoom out on the subject, and provides a wider angle image.
4. Press the shutter button.
   - Pressing the shutter button down halfway automatically focuses and adjusts the exposure, and pressing the shutter button down fully captures the image.
   - The focus area frame turns green when the camera is in focus and the exposure is calculated.
   - When the focus is not suitable, the frame of the focus area turns red.



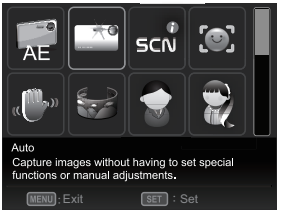
Setting the Scene Mode

By simply selecting one of the available 24 scene modes, you can capture the image with the most appropriate settings.

1. Press the **MODE** button, and set the camera mode to [ ], and press the **SET** button.



2. Select the desired scene mode with the ◄ / ► / ▲ / ▼ buttons, and press the **SET** button.
3. Compose the image and press the shutter button.



The table below will help you choose the appropriate scene mode:

Scene mode	Description
Program AE	This mode allows you to manually set parameters other than the shutter speed and the aperture value.
Auto	Select this mode when you want to capture images without having to set special functions or manual adjustments.
Intelligent Scene	Select this mode when you want the camera to select an ideal shooting mode according to environment automatically.
Smile Detection	Select this mode to automatically capture an image when a smiling face is detected.
Anti-shake	This mode minimizes the influences of hand shaking when you want to capture an image.
Panorama PanCapture	Select this mode when you want the camera to combine pictures in the camera automatically.
Portrait Man	Select this mode when you want to capture an image that makes a man stand out against a blurred background.
Portrait Lady	Select this mode when you want to capture an image that makes a lady stand out against a blurred background.
Landscape	Select this mode when you want to capture an image with infinity focus, hard sharpness and high saturation.

Scene mode	Description
Sports	Select this mode when you want to capture fast-moving subjects.
Night Portrait	Select this mode when you want to capture people with an evening or night scene background.
Night Scene	Select this mode when you want to capture dark scenes such as night views.
Candlelight	Select this mode when you want to capture photos of candlelight scene, without spoiling the ambience.
Fireworks	Select this mode when you want to capture fireworks clearly with optimal exposure. The shutter speed becomes slower, so using a tripod is recommended.
Text	Select this mode when you want to capture an image that contains black and white subjects like printed documents.
Sunset	Select this mode when you want to capture a sunset. This mode helps keep the deep hues in the scene.
Sunrise	Select this mode when you want to capture a sunrise. This mode helps keep the deep hues in the scene.
Splash Water	Select this mode when you want to capture photos of splashing water.
Flow Water	Select this mode when you want to capture the soft flowing water.
Snow	Select this mode when you want to capture clear snow scenes without darkened subjects and bluish tint.
Beach	Select this mode when you want to capture bright beach scenes and sunlit water surfaces.
Pets	Select this mode when you want to capture your pets. Shoot from their eye level.
Photo Frame	Select this mode when you want to personalize your photo by adding suitable frame to your photo.
Natural Green	Select this mode when you want to capture the green scenery background such as forest. This mode helps to brighten the colors.

Taking Images with Intelligent Scene mode

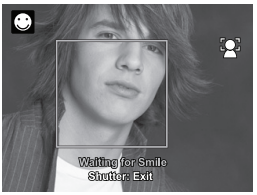
In this Intelligent Scene mode, the camera can sense the ambient conditions and automatically select the ideal shooting mode.

1. Press the **MODE** button, and set the camera mode to [ ], and press the **SET** button.
2. Select [Intelligent Scene] with the ◄ / ► / ▲ / ▼ buttons, and press the **SET** button.
   - The camera can automatically select best mode for the shooting scene from [Auto] / [Landscape] / [Backlight] / [Portrait] / [Night] / [Night Portrait] / [Macro].
3. Compose the image, and press the shutter button down fully.

Taking Images When the Smile Feature Is On

With the camera's new "smile detection" function, this camera detects smiles so you do not miss those special moments in life.

1. Press the **MODE** button, and set the camera mode to [ ], and press the **SET** button.
2. Select [Smile Detection] with the ◄ / ► / ▲ / ▼ buttons, and press the **SET** button.
3. Compose the image, and press the shutter button down fully.
4. Once the camera detects a smile, it will automatically capture 3 images (by default, the flash mode setting is set to).
   - If the [Capture Md.] is set to [Single], the camera will only capture an image after it detects a smile.
   - When capturing group shots (if the number of people is more than 1), the camera will automatically capture the image(s) when it detects two smiles.
   - If the camera does not detect a smile within 1 minute, the camera returns to preview display.
   - Press the shutter button once again to reactivate this function.



Taking and Combining Panoramic Pictures

Pictures are manually shot, and the camera automatically combines pictures in the camera.

1. Press the **MODE** button, and set the camera mode to [ ], and press the **SET** button.
2. Select [Panorama PanCapture] with the ◄ / ► / ▲ / ▼ buttons, and press the **SET** button.
3. Select the photographic direction with the ◄ / ► buttons.
4. Shoot the first image.
   - The next image appears beside the previous image.
5. Orient the camera so that the second frame overlaps a small portion of the photographic subject of the first image and press the shutter button to capture the next image.
6. Follow the same steps to capture subsequent images in the sequence.
7. After the third picture is taken, the pictures are automatically combined.

- Set to [Panorama PanCapture] image size will be 2M.

Photo Frame Function

Use this function to add suitable frame to your image and make it personalized.

1. Press the **MODE** button, and set the camera mode to [ ], and press the **SET** button.
2. Select [Photo Frame] with the ◄ / ► / ▲ / ▼ buttons, and press the **SET** button.
3. Select your favorite frame with◄ / ► / ▲ / ▼ buttons, and press the **SET** button.
4. Press the shutter button down fully to capture your image.

Recording Shots into Multiple Image Layout

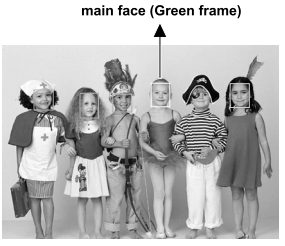
The Album Shot mode enables you to easily record images and combine three shots into a single image.

1. Press the **MODE** button, and set the camera mode to [ ].
2. Press the **MENU** button, and select [Capture Md.] icon with the ▲ / ▼ buttons. Press the **SET** button.
3. Select [Album Shot] with the ◄ / ► buttons, and press the **SET** button.
4. Press the **MENU** button.
5. Press the shutter button to capture the first image.
6. Press the shutter button again to capture the second and third images.
   - The camera returns to normal preview display by pressing the ▼ button. Press the ▼ button again to switch back to album shot preview display.
   - This shot can only be recorded if there are 3 shots recorded in each of the available frames.

Recording Shots using Face Detection Technology

Face Detection Technology can identify and focus on the human faces in the image.

1. Press the **MODE** button, and set the camera mode to [ ].
2. Press the button, and select [ ] icon with the ◄ / ► buttons. Press the **SET** button.
   - With Face Detection turned on, the camera identifies main face (white frame) and subsidiary faces (gray frames).
   - If the camera cannot detect and track any faces, there will be no frame shown on the screen.
3. Press the shutter button halfway down to lock the focus.
   - When the main face is in focus, the white frame simultaneously turns green. Otherwise, it turns red.
4. Press the shutter button down fully to capture your image.



Focus lock

- Subjects that are not suitable with this function:
  a. A person is wearing glasses, sunglasses, or face is covered with hat or hair.
  b. A person turns sideways.

AF Tracking Mode

Use this option to take pictures of moving subject.

1. Press the **MODE** button, and set the camera mode to [ ].
2. Press the button, and select [ ] icon with the ◄ / ► buttons. Press the **SET** button.
3. To lock the desired tracking subject, press the ▼ button.
   - The frame automatically tracks the subject movement to focus on it continuously.
4. Press the shutter button down fully to capture your image.
   - When the camera fails to recognize or track the subject, the frame will turns red and blinks. After blinking of the red frame, the camera returns to unlock display.
   - Press the ▼ button, to returns to unlock display.

Self-portrait Function

Use this function to take pictures of yourself or include yourself in pictures.

1. Press the **MODE** button, and set the camera mode to [ ].
2. Press the button, and select [ ] icon with the ◄ / ► buttons. Press the **SET** button.
3. Press the shutter button.
4. If the camera detect and track any faces, after twice blinking of the self-timer LED, one image will be captured.
   - Press the shutter button to exit.
   - If it does not detect any face within 30 seconds, the camera will automatically capture an image and return to preview display.
   - Select [ ] to reactivate this function.

Find Blur Function

With the camera's new "Find Blur" function, this camera finds the blurry photo when capture under Continuous.

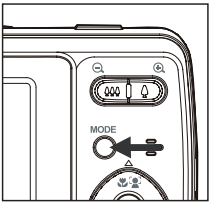
1. Press the **MODE** button, and set the camera mode to [ ].
2. Press the **MENU** button, and select [Find Blur] icon with the ▲ / ▼ buttons. Set "Find Blur" on.
3. Press the shutter button to return to preview display.
4. Press the shutter button down fully to capture your image.
5. Press the **SET** (Execute) button to save the best image.
   - Press the **MENU** (Cancel) button to save all images.

VIDEO MODE

Recording Video Clips

This mode allows you to record video clips at a resolution of 320 x 240 / 640 x 480 / 720p pixels.

1. Press the **MODE** button, and set the camera mode to [ ].
2. Compose the image.
3. Press the shutter button.
   - The recording of the video clip will start.
   - Pressing the shutter button one more time will end the recording of the video clip.
   - The recording time depends on the storage size and the subject of the image to be recorded.
   - The zoom function cannot be used during video recording.



- When recording a video clip, the flash and "10+2 sec." self-timer function cannot be used.
- If the write speed of your SD/SDHC memory card is not fast enough for recording video clips in the currently selected quality, the video recording will stop. In this case, select a video quality lower than the current one.
- A video recording will stop automatically when a video clip becomes approx. 4GB or 25minutes

Playing Back Video Clips

You can play back recorded video clips on the camera.

1. Press the ▶ button.
   - The last image appears on the screen.
2. Select the desired video clip with the ◄ / ► buttons.
3. Press the **SET** button.
   - A press of the ► / ◄ buttons during playback allows fast forward play / fast reverse play.
   - To stop video playback, press the ▼ button.
     This stops playback and returns to the start of the video clip.
   - To pause video playback, press the **SET** button.
     This pauses video playback.
     To cancel pause, press the **SET** button again.

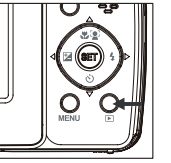
- Video clips cannot be displayed rotated or enlarged.
- You cannot play sounds because the camera does not support the speaker function. Please use PC or other media to play the videos with sounds.
- Windows Media player or QuickTime Player is recommended to play back the video clip on your computer.
- QuickTime Player is a free media player available at www.apple.com; and compatible with Mac and Windows computers.
- For more information about the operation of the media player, refer to its respective help documentation.

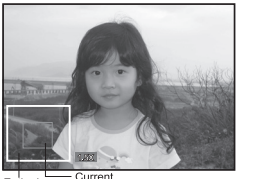
PLAYBACK MODE

Playing Back Still Images

You can play back the still images on the LCD monitor.

1. Press the ▶ button.
   - The last image appears on the screen.
2. The images can be displayed in forward or reverse sequence with the ◄ / ► buttons.
   - To view the previous image, press the ◄ button.
   - To view the next image, press the ► button.
   - Turn the zoom lever to 🔍 side enlarges the image.
   - To return to normal magnification, turn the zoom lever to 🔍 side.





- An [ ] icon is displayed with the video data. Video clips cannot be rotated.

Thumbnail Display

This function allows you to view 9 thumbnail images on the LCD monitor at the same time, which can let you quickly search for the image that you want.

1. Press the ▶ button.
   - The last image appears on the screen.
2. Press the 🔍 button.
   - The images are displayed in the thumbnail display.
   - Images that have been selected with the ◄ / ► / ▲ / ▼ buttons will be indicated by a yellow frame.
   - When there are ten or more images, scroll the screen with the ▲ / ▼ buttons.
3. Press the ◄ / ► / ▲ / ▼ buttons to select the image to be displayed at regular size.
4. Press the **SET** button.
   - The selected image is displayed at its regular size.

- An [🔑], [🎬] icon may be displayed in a thumbnail.

Removing Red-eye

You can use this function to remove the red-eye effect after an image is taken.

1. Press the ▶ button.
   - The last image appears on the screen.
2. Select the image that you want to edit with the ◄ / ► buttons.
3. Press the **MENU** button.
4. Select [Fix Red Eyes] with the ▲ / ▼ buttons, and press the **SET** button.
5. Select [Execute] with the ◄ / ► buttons, and press the **SET** button.
6. View the changes on the corrected image.
7. To save your corrected image, select [Confirm] with the ◄ / ► buttons, and press the **SET** button.
   - When this process ends, this replaces the original image with the corrected image.

Dynamic Lighting Feature

This feature compensates for the unfavorable lighting conditions by brightening underexposed areas and balancing overexposed areas.

1. Press the ▶ button.
   - The last image appears on the screen.
2. Select the image that you want to edit with the ◄ / ► buttons.
3. Press the **MENU** button.
4. Select [Dynam. Light.] with the ▲ / ▼ buttons, and press the **SET** button.
5. Select [High] or [Low] with the ◄ / ► buttons, and press the **SET** button.
6. View the changes on the corrected image.
7. To save your corrected image, select [Confirm] with the ◄ / ► buttons, and press the **SET** button.
   - When this process ends, this replaces the original image with the corrected image.

Protecting Images

Set the data to read-only to prevent images from being erased by mistake.

1. Press the ▶ button.
   - The last image appears on the screen.
2. Select the image that you want to protect with the ◀ / ▶ buttons.
3. Press the **MENU** button.
4. Select [Protect] with the ▲ / ▼ buttons, and press the **SET** button.
5. Select [Single] or [All] with the ◀ / ▶ buttons, and press **SET** button.
6. Select [Set] with the ◀ / ▶ buttons, and press the **SET** button.
   - Protection is applied to the image and the camera returns to the playback mode.
   - The protect icon [🔑] is displayed with protected images.
     When [All] has been selected, [🔑] is displayed with all the images.

Canceling the Protection

To cancel protection for only one image, display the image on which you want to remove the image protection.

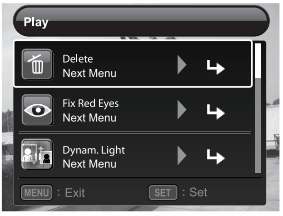
1. Press the ▶ button.
   - The last image appears on the screen.
2. Select the image that you want to cancel protection with the ◀ / ▶ buttons.
3. Press the **MENU** button.
4. Select [Protect] with the ▲ / ▼ buttons, and press the **SET** button.
5. Select [Single] or [All] with the ◀ / ▶ buttons, and press the **SET** button.
6. Select [Cancel Protect] with the ◀ / ▶ buttons, and press the **SET** button.
   - The removal of image protection is executed and the camera returns to the playback mode.

- Formatting an SD/SDHC memory card overrides protection, and erases all images regardless of their protected status.

Erasing Images

Erasing a single image / Erasing all images

The quick delete function enables you to delete the last captured image during capture.



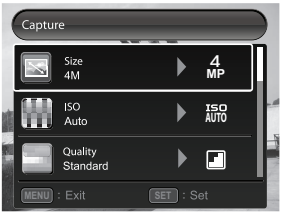
1. Press the ▶ button.
   - The last image appears on the screen.
2. Select the image you want to erase with the ◄ / ► buttons.
3. Press the **MENU** button.
4. Select [Delete] with the ▲ / ▼ buttons, and press the **SET** button.
5. Select [Single] or [All] with the ◄ / ► buttons, and press the **SET** button.
   - [Single]: Erases the selected image or the last image.
   - [All]: Erases all of the images except for the protected images.
6. Select [Execute] with the ◄ / ► buttons, and press the **SET** button.
   - To not erase, select [Cancel], and press the **SET** button.
7. To exit from the menu, press the **MENU** button.

- Deleting an image will not affect sequential image numbering. For example, if you delete image number 240, the next captured image will be numbered 241 even though 240 no longer exists. In other words, an image-number is retired when an image is deleted and will not be reused or reassigned to another subsequently captured image.

MENU OPTIONS

Capture Menu

This menu is for the basic settings to be used when capturing still images.



1. Press the **ON/OFF** button to turn the power on.
2. Press the **MODE** button, and set the camera mode to any scene mode.
3. Press the **MENU** button to enter the [Capture] menu.
4. Select the desired option item with the ▲ / ▼ buttons, and press the **SET** button to enter its respective menu.
   - The selectable items may vary in different capture modes.
5. Select the desired setting with the ◄ / ► buttons, and press the **SET** button.
6. To exit from the menu, press the **MENU** button.

Size

This sets the size of the image that will be captured.

* 12M / 8M / 4M / 2M / VGA

ISO

This sets the sensitivity for capturing images. When the sensitivity is raised (and the ISO figure is increased), photography will become possible even in dark locations, but the more pixelated (grainier) the image will appear.Set to ISO 3200 image size will be 2M.

* Auto / ISO100 / ISO 200 / ISO 400 / ISO 800 / ISO 1600/ ISO 3200

Quality

This sets the quality (compression) at which the image is captured.

* Fine / Standard / Economy

W. Balance

This sets the white balance for a variety of lighting conditions and permits images to be captured that approach the conditions that are seen by the human eye.

*Auto / Incand. / Fluoresc.1 / Fluoresc.2 / Daylight / Cloudy / Manual WB

Sharpness

This sets the sharpness of the image that will be captured.

* Hard / Standard / Soft

Color

This sets the color of the image that will be captured.

* Standard / Vivid / Sepia / B&W / Blue / Red / Green / Yellow / Purple

Saturation

This sets the saturation of the image that will be captured.

* High / Standard / Low

Metering

This sets the metering method for calculating the exposure.

* Center: Averages the light metered from the entire frame, but gives greater weight to the subject matter at the center.
* Spot: A very small portion of the center of the screen is measured to calculate the correct exposure.
* Average: The exposure is measured all of the image area.

Capture Md.

This sets the recording method at the time of capturing images.

* Single: Captures one image at a time.
* Continuous: Permits continuous capture of up to 3 images.
* AEB: Permits 3 consecutive images in the order of standard exposure, underexposure and overexposure compensation.
* Album Shot: Creates an album-like layout to combine 3 shots into a single image.

Quick Shot

If this function is set to “On”, the camera takes a quick shot without focusing.

* On / Off

Digi. Zoom

This sets whether or not to use digital zoom at the time of photography.

* On / Off

Find Blur

Refer to the section in this manual titled “Find Blur” for further details.

* On / Off

Date Print

The date of recording can be printed directly on the still images. This function must be activated before the image is captured.

* On / Off

Setup

Refer to the section in this manual titled “Setup Menu” for further details.

Video Menu

This menu is for the basic settings to be used when recording video clips.

1. Press the **MODE** button, and set the camera mode to [ ].
2. Press the **MENU** button to enter the [Video] menu.
3. Select the desired option item with the ▲ / ▼ buttons, and press the **SET** button to enter its respective menu.
4. Select the desired setting with the ◄ / ► buttons, and press the **SET** button.
5. To exit from the menu, press the **MENU** button.

Size

This sets the size of the video clip that will be captured.

* HD / VGA / QVGA

Quality

This sets the quality (compression) at which the video clip is captured.

* Fine / Standard

Color

This sets the color of the video clip that will be captured.

* Standard / Vivid / Sepia / B&W / Blue / Red / Green / Yellow / Purple

Audio

This sets whether or not to record audio at the time of video recording.

* On / Off

Digi. Zoom

Refer to the section in this manual titled “Digi. Zoom” in Capture Menu for further details.

Setup

Refer to the section in this manual titled “Setup Menu” for further details.

Playback Menu

In the [▶] mode, choose which settings are to be used for playback.

1. Press the ▶ button.
2. Press the **MENU** button.
3. Select the desired option item with the ▲ / ▼ buttons, and press the **SET** button to enter its respective menu.
4. Select the desired setting with the ◄ / ► buttons, and press the **SET** button.
5. To exit from the menu, press the **MENU** button.

Delete

Refer to the section in this manual titled “Erasing Images” for further details.

Fix Red Eyes

Refer to the section in this manual titled “Removing Red-eye” for further details.

Dynam. Light.

Refer to the section in this manual titled “Dynamic Lighting Feature” for further details.

Slide Show

This function enables you to play back your still images automatically in order one image at a time.

* 3 Sec. / 5 Sec. / 10 Sec.

Protect

Refer to the section in this manual titled “Protecting Images” for further details.

Copy to Card

Allows you to copy your files from the camera’s internal memory to a SD/SDHC memory card. Of course, you can only do this if you have a memory card installed and some files in internal memory. All files remain in the internal memory, even after copy to the SD/SDHC memory card from the internal memory.

* Cancel / Execute

Setup

Refer to the section in this manual titled “Setup Menu” for further details.

Setup Menu

Set your camera's operating environment.

1. Press the **MODE** button, and set the camera mode to [ ] or [ ]; or press the ▶ button.
2. Press the **MENU** button.
3. Select the [Setup] at the end of the Menu with the ▲ / ▼ buttons, and press the **SET** button.
4. Select the desired option item with the ▲ / ▼ buttons, and press the **SET** button to enter its respective menu.
5. Select the desired setting with the ◀ / ▶ buttons, and press the **SET** button.
6. To exit from the menu, press the **MENU** button.

Date/Time

Refer to the section in this manual titled "Setting the Date and Time" for further details.

Language

Refer to the section in this manual titled "Choosing the Language" for further details.

Auto Off

If no operation is performed for a specific period of time, the power to the camera is automatically turned off. This feature is useful for reducing battery usage.

* Off / 1 Min. / 2 Min. / 3 Min.

Beep

This sets whether or not to mute the camera sound each time you press the camera's buttons.

* On / Off

Display

This sets the image information display state.

* Standard / All / Off

Fr. No. Reset

This creates a new folder. The captured images are recorded to the newly created folder from number 0001.

* Cancel / Execute

Light Freq.

This camera supports different lighting frequencies: 50 Hz and 60 Hz. When photographing under fluorescent lighting, select the correct frequency setting depending in your local area's voltage.

* 50 Hz / 60 Hz

LCD Bright.

Select a brightness level for the LCD monitor.

* Standard / Bright

Format

Refer to section in this manual titled “Formatting the Memory Card or Internal Memory” for further details.

Media Info.

This displays the free capacity of the internal memory or the memory card.

Sys. Info.

This displays the firmware version of the camera.

Sys. Reset

This returns all basic settings to the camera’s default settings. The time setting will not be reset.

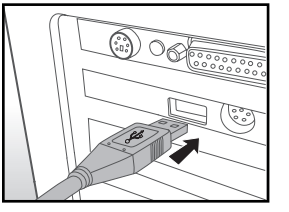
* Cancel / Execute

TRANSFERRING FILES TO YOUR COMPUTER

System Requirement

Windows	Macintosh
■ Pentium III 1GHz or equivalent	■ PowerPC G3/G4/G5
■ Windows XP/Vista/7	■ OS 10.3.9 or later
■ 512MB RAM	■ 256MB RAM (512 MB recommended)
■ 150MB available hard disk space	■ 128MB available hard disk space
■ CD-ROM drive	■ CD-ROM drive
■ Available USB port	■ Available USB port

Downloading Your Files



1. Turn on your camera.
2. Connect the camera to your computer with the USB cable.
3. Select [PC] using the ▲ / ▼ buttons and press the **SET** button.
4. From the Windows desktop, double click on “My Computer”.
5. Look for a new “removable disk” icon.
6. Double click on the removable disk and locate the DCIM folder.
   - ■ Your recorded images and video clips will be inside the folders of DCIM folder.
   - ■ Copy&Paste or Drag-N-Drop image and video files to a folder on your computer.

Mac users: Double-click the “untitled” or “unlabeled” disk drive icon on your desktop. iPhoto may automatically launch.

■ Black screen appears when camara is conneted with PC without battery inside.

EDITING SOFTWARE INSTALLATION

There are 2 types of software that are included on the CD-ROM:

ArcSoft MediaImpression™ - Easily, creatively, and productively manage your multimedia files. Create your own movies or photo slide shows, and share your photo, video and music files easily through simple email attachments or popular photo printing and video sharing websites.

Print Creations - brings you a family of fun and easy print-project software that brings out the creativity in you. You can personalize the designs with your own digital pictures and text based on professionally designed templates and layouts. Projects can be printed at home or saved as image files for sharing with family and friends by email or the web.

To install software:

1. Insert the CD-ROM that came with the camera into your CD-ROM drive.
   The welcome screen appears.
2. Click the respective software name.
   Follow the on-screen instructions to complete the installation.

- For more information about the operation of the software, refer to its respective help documentation.
- For Windows XP/Vista/7 users, please make sure to install and use the software in "Administrator" mode.
- The software is not supported by Mac.

SPECIFICATIONS

Item	Description
Image sensor	1/2.33” CCD sensor (12.0 megapixels)
Image resolution	Still image 12M(3968X2976),8M(3264x2448),4M(2304x1728),2M(1600x1200), VGA(640x480) Video clip HD(720p)/30fps, VGA(640x480)/30fps, QVGA(320x240)/30fps
LCD monitor	2.7” full color TFT LCD (230K pixels)
Recording media	32MB internal memory (23MB available for image storage) Supports SD/SDHC memory card (1GB ~ 32GB) (optional)
File format	DCF, JPEG (EXIF 2.2), Motion-JPEG (AVI), HD720p/30fps
Lens	3x optical zoom lens Aperture range: 3(W) - 5.6(T) Focal length: 6.2mm - 18.6mm (equivalent to 34mm - 102mm on a 35mm camera)
Focus Range	Normal 0.4m to infinity Macro Wide: 0.05m to infinity Tele: 0.3m to infinity
Shutter speed	1~1/2000 sec.
Digital zoom	6x (Capture mode) 4x (Playback mode)
Flash effective range	0.5m - 3m (Wide) 0.5m - 2.1m (Tele)
Terminals	USB 2.0
Power supply	2 x AA size batteries
Operating environment	Temperature 0°C - 40°C (32°F to 104°F) -20°C to 60°C (-4°F to 140°F)(storage)
	Humidity 10% to 90% (Operating and storage)
Dimensions	Approx. 96X 60.7 X 27.7mm (without protruding parts)
Weight	Approx. 114g (without batteries and memory card)

* Design and specifications are subject to change without notice.

APPENDIX

Possible Number of Shots

Possible number of shots (still image)

The table shows the approximate shots that you can capture at each setting based on the capacity of the internal memory and the SD/SDHC memory card.

Size	Quality	Internal Memory	SD/SDHC memory card capacity					
			1GB	2GB	4GB SDHC	8GB SDHC	16GB SDHC	32GB SDHC
12 MP 3968 x 2976	Fine	2	134	274	538	1096	2207	4428
	Standard	4	186	378	744	1515	3049	6117
	Economy	6	274	558	1097	2234	4495	9018
8 MP 3264 x 2448	Fine	4	187	381	748	1524	3067	6153
	Standard	6	264	538	1058	2153	4334	8694
	Economy	9	404	823	1616	3290	6620	16280
4 MP 2304 x 1728	Fine	6	304	619	1216	2475	4980	9991
	Standard	10	453	923	1813	3691	7428	14900
	Economy	15	652	1326	2605	5301	10667	21399
2 MP 1600 x 1200	Fine	13	561	1141	2241	4562	9179	18414
	Standard	19	798	1625	3191	6495	13069	26218
	Economy	25	1068	2172	4266	8682	17468	35042
VGA 640 x 480	Fine	53	2215	4506	8847	18005	36228	72672
	Standard	69	2729	5755	11300	22996	46268	92813
	Economy	87	3562	7245	14226	28952	58251	99999

Possible recording time / sec (video clip)

Size	Quality	Internal Memory	SD/SDHC memory card capacity					
			1GB	2GB	4GB SDHC	8GB SDHC	16GB SDHC	32GB SDHC
HD 1280 x 720	Fine	0:00:05	0:04:01	0:08:11	0:16:05	0:32:44	1:05:53	2:12:10
	Standard	0:00:06	0:04:17	0:08:42	0:17:06	0:34:49	1:10:04	2:20:33
VGA 640 x 480	Fine	0:00:11	0:07:35	0:15:25	0:30:17	1:01:38	2:04:02	4:08:48
	Standard	0:00:12	0:08:35	0:17:28	0:34:18	1:09:48	2:20:28	4:41:47
QVGA 320 x 240	Fine	0:00:32	0:22:25	0:45:36	1:29:33	3:02:15	6:06:42	12:15:36
	Standard	0:00:44	0:30:48	1:02:39	2:03:02	4:10:24	8:23:49	16:50:40

* The table above shows the approximate maximum recording times. These are the total times for all clips. A video recording will stop automatically when a video clip becomes approx. 4GB or 25minutes.
* We recommend a memory card of at least 10MB/Sec write speed to prevent auto stop or unexpected results. If you experience an error using a slower SD/SDHC memory card, you can set your camera's video recording to QVGA (320 x 240) and standard quality.
* SDHC Class6 or above is required for HD movie recording.

Troubleshooting

Refer to the symptoms and solutions listed below before sending the camera for repairs. If the problem persists, contact your local reseller or service center.

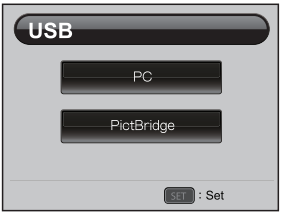
Symptom	Cause	Solutions / Corrective Actions
The power does not come on.	The batteries are not inserted.	Load the batteries correctly.
	The batteries are exhausted.	Replace with a new set of batteries.
The batteries or camera feels warm.	Long period of continuous use of the camera or the flash.	
Even if press the shutter button, the camera does not take a picture.	The shutter button is not pressed all the way down.	Press the shutter button all the way down.
	The memory card does not have any free capacity.	Insert a new memory card, or delete unwanted files.
	The memory card is write-protected.	Remove the write-protection.
Images do not appear on the LCD monitor.	LCD monitor is dark.	Adjust the brightness of the LCD monitor in the menu.
Although it is set to auto focus, it does not focus.	The lens is dirty.	Wipe clean with a soft, dry cloth or lens paper.
	The distance to the subject is smaller than the effective range.	Get your subject within the effective focus range.
The contents on the memory card cannot be played back.	You played back a memory card that was not formatted by this camera.	Insert a memory card that was formatted on this camera.
Files cannot be deleted.	The file is protected.	Cancel protection.
	The memory card is write-protected.	Remove the write-protection.
The date and time are wrong.	The correct date and time is not set.	Set the correct date and time.
Cannot download images.	The free space on the hard disk in your computer may be insufficient.	Check whether the hard disk has space for running Windows, and if the drive for loading image files has a capacity at least that of the memory card inserted in the camera.
	No power supply.	Replace with a new set of batteries.

Connecting to a PictBridge Compliant Printer

If a printer that supports PictBridge is available, images can be printed by connecting the digital still camera directly to the PictBridge-compatible printer without using a computer.

Connecting the camera to the printer

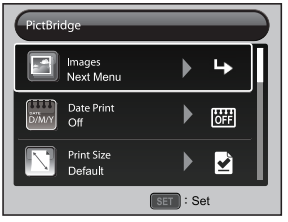
1. Connect one end of the USB cable to your camera.
2. Connect the other end of the USB cable to the USB port on the printer.
3. Turn on your camera.
4. The [USB] screen is displayed. Select [PictBridge] with the ▲ / ▼ buttons, and press the **SET** button.



Printing images

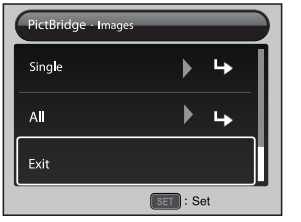
When the camera is properly connected to a PictBridge compliant printer, the PictBridge menu is displayed on the monitor.

1. Select the item you want to configure with the ▲ / ▼ buttons, and press the **SET** button.
   - [Images]:Select whether you want to print specific image or all images. You may also select the printing number for a specific image.
   - [Date Print]:According to the printer type, select whether you want to print the image with date imprint or not.
   - [Paper Size]:Select the desired paper size according to the printer type.
   - [Layout]:Select the desired printing layout according to the printer type.
   - [Print]:After all settings are configured, select this item to start printing.
2. If you select [Images] in the previous step, the figure shown on the right hand side will appear. Select [Single] or [All] with the ▲ / ▼ buttons, and press the **SET** button.
   - [Single]:Select to print one specific image.
   - [All]:Select to print all images.
   - [Exit]:Exit from Images option.

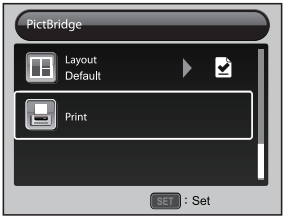


3. If you select [Single] in the previous step, the figure shown on the right hand side will appear.
   - Select the image that you want to print with the ◄ / ► buttons.
   - Select the print number (up to 99) with the ▲ / ▼ buttons.
   - After selecting the desired image and printing number, press the **SET** button to confirm.

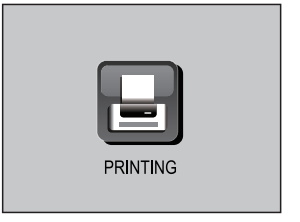
4. Select [Exit] with the ▲ / ▼ buttons, and press the **SET** button.



5. Select [Print] with the ▲ / ▼ buttons, and press the **SET** button to start printing.



6. The printing starts and the figure shown on the right hand side appears.
   - [COMPLETE] will be displayed temporarily, reminding you that the printing procedure is finished.
   - If an error is detected during the connection (i.e. a printer hardware problem) between camera and printer, [PRINT ERROR] will be displayed.
   - If an error is detected during the communication (i.e. wrong setting on the camera) between camera and printer, [ERROR] will be displayed.



- The image printing may fail if the power to the camera is cut off.

Battery life

Maximum recording time	130 images CIPA standard (when a SanDisk 2 GB SD memory Card is used)

* Design and specifications are subject to change without notice.

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Printed in China